SAFETY DATA SHEET

Based upon Regulation (EC) No. 1907/2006, as amended by Regulation (EC) No. 453/2010

Fix All Crystal

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Product name : Fix All Crystal
Registration number REACH : Not applicable (mixture)
Product type REACH : Mixture

1.2 Relevant identified uses of the substance or mixture and uses advised against:

1.2.1 Relevant identified uses

Adhesive

Sealant

1.2.2 Uses advised against

No uses advised against known

1.3 Details of the supplier of the safety data sheet:

Supplier of the safety data sheet

SOUDAL N.V.
Everdongenlaan 18-20
B-2300 Turnhout
☎ +32 14 42 42 31
 +32 14 42 65 14
msds@soudal.com

Manufacturer of the product

SOUDAL N.V.
Everdongenlaan 18-20
B-2300 Turnhout
☎ +32 14 42 42 31
 +32 14 42 65 14
msds@soudal.com

1.4 Emergency telephone number:

24h/24h (Telephone advice: English, French, German, Dutch):
+32 14 58 45 45 (BIG)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture:

Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

Class	Category	Hazard statements
Aquatic Chronic	category 3	H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements:

Hazard pictograms

No pictogram is used

Signal word No signal word

H-statements

H412 Harmful to aquatic life with long lasting effects.

P-statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P273 Avoid release to the environment.
P501 Dispose of contents/container in accordance with local/regional/national/international regulation.

2.3 Other hazards:

Slightly irritant to eyes

DSD/DPD

Slightly irritant to eyes

SECTION 3: Composition/information on ingredients

3.1 Substances:

Not applicable

3.2 Mixtures:

Name REACH Registration No	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark
3-(trimethoxysilyl)propylamine 01-2119510159-45	13822-56-5 237-511-5	1%<C<2.5%	Skin Irrit. 2; H315 Eye Dam. 1; H318	(1)(10)	Constituent
bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate 01-2119978231-37	63843-89-0 264-513-3	0.1%<C<1%	STOT RE 1; H372 Acute Tox. 4; H302 Aquatic Chronic 1; H410	(1)	Constituent
dioctylbis(pentane-2,4-dionato-O,O')tin 01-0000020199-67	54068-28-9 483-270-6	0.5%<C<5%	STOT SE 2; H371 STOT RE 2; H373 Skin Sens. 1; H317	(1)(8)(10)	Constituent
methanol 01-2119433307-44	67-56-1 200-659-6	0.1%<C<1%	Flam. Liq. 2; H225 Acute Tox. 2; H330 Acute Tox. 3; H311 Acute Tox. 3; H301 STOT SE 1; H370	(1)(2)(8)(10)	Constituent

(1) For H-statements in full: see heading 16
(2) Substance with a Community workplace exposure limit
(8) Specific concentration limits, see heading 16
(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

SECTION 4: First aid measures

4.1 Description of first aid measures:

General:

If you feel unwell, seek medical advice.

After inhalation:

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

After skin contact:

Rinse with water. Soap may be used. Take victim to a doctor if irritation persists.

After eye contact:

Rinse with water. Take victim to an ophthalmologist if irritation persists.

After ingestion:

Rinse mouth with water. Consult a doctor/medical service if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed:

4.2.1 Acute symptoms

After inhalation:

No effects known.

After skin contact:

No effects known.

After eye contact:

Slight irritation.

After ingestion:

No effects known.

4.2.2 Delayed symptoms

No effects known.

4.3 Indication of any immediate medical attention and special treatment needed:

If applicable and available it will be listed below.

SECTION 5: Firefighting measures

5.1 Extinguishing media:

5.1.1 Suitable extinguishing media:

Polyvalent foam. Dry chemical powder. Carbon dioxide.

5.1.2 Unsuitable extinguishing media:

No unsuitable extinguishing media known.

5.2 Special hazards arising from the substance or mixture:

Upon combustion: formation of CO, CO2 and small quantities of nitrous vapours, hydrogen chloride.

5.3 Advice for firefighters:

5.3.1 Instructions:

Take account of environmentally hazardous firefighting water. Use water moderately and if possible collect or contain it.

5.3.2 Special protective equipment for fire-fighters:

Gloves. Protective clothing. Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

No naked flames.

6.1.1 Protective equipment for non-emergency personnel

See heading 8.2

6.1.2 Protective equipment for emergency responders

Gloves. Protective clothing.

Suitable protective clothing

See heading 8.2

6.2 Environmental precautions:

Contain leaking substance. Dam up the solid spill. Prevent soil and water pollution. Prevent spreading in sewers. Use appropriate containment to avoid environmental contamination.

6.3 Methods and material for containment and cleaning up:

Cover the solid spill with sand/kieselguhr. Scoop solid spill into closing containers. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4 Reference to other sections:

See heading 13.

SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

7.1 Precautions for safe handling:

Keep away from naked flames/heat. Observe normal hygiene standards. Keep container tightly closed. Do not discharge the waste into the drain.

7.2 Conditions for safe storage, including any incompatibilities:

7.2.1 Safe storage requirements:

Store at room temperature. Meet the legal requirements. Max. storage time: 1 year(s).

7.2.2 Keep away from:

Heat sources.

7.2.3 Suitable packaging material:

Plastics.

7.2.4 Non suitable packaging material:

No data available

7.3 Specific end use(s):

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters:

8.1.1 Occupational exposure

a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

The Netherlands

Methanol	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	100 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	133 mg/m³
Tinverbindingen (organisch)(als Sn)	Time-weighted average exposure limit 8 h (Private occupational exposure limit value)	0.1 mg/m³
	Short time value (Private occupational exposure limit value)	0.2 mg/m³

EU

Methanol	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	200 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	260 mg/m³

Belgium

Alcool méthylique	Time-weighted average exposure limit 8 h	200 ppm
	Time-weighted average exposure limit 8 h	266 mg/m³
	Short time value	250 ppm
	Short time value	333 mg/m³
Etain (composés organiques de) (en Sn)	Time-weighted average exposure limit 8 h	0.1 mg/m³
	Short time value	0.2 mg/m³

USA (TLV-ACGIH)

Methanol	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	200 ppm
	Short time value (TLV - Adopted Value)	250 ppm
Tin organic compounds, as Sn	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	0.1 mg/m³
	Short time value (TLV - Adopted Value)	0.2 mg/m³

Germany

Methanol	Time-weighted average exposure limit 8 h (TRGS 900)	200 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	270 mg/m³

France

Etain (composés organiques d'), en Sn	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	0.1 mg/m³
	Short time value (VL: Valeur non réglementaire indicative)	0.2 mg/m³
Methanol	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	200 ppm
	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	260 mg/m³
	Short time value (VL: Valeur non réglementaire indicative)	1000 ppm
	Short time value (VL: Valeur non réglementaire indicative)	1300 mg/m³

UK

Methanol	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	200 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	266 mg/m³
	Short time value (Workplace exposure limit (EH40/2005))	250 ppm
	Short time value (Workplace exposure limit (EH40/2005))	333 mg/m³
Tin compounds, organic, except Cyhexatin (ISO), (as Sn)	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	0.1 mg/m³
	Short time value (Workplace exposure limit (EH40/2005))	0.2 mg/m³

b) National biological limit values

If limit values are applicable and available these will be listed below.

8.1.2 Sampling methods

If applicable and available it will be listed below.

Methanol (organic and inorganic gases by Extractive FTIR)	NIOSH	3800
Methanol (Volatile Organic compounds)	NIOSH	2549
Methyl Alcohol (Methanol)	NIOSH	2000
Methyl Alcohol	OSHA	91

8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

8.1.4 DNEL/PNEC values

DNEL - Workers

3-(trimethoxysilyl)propylamine

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	58 mg/m³	
	Long-term systemic effects dermal	8.3 mg/kg bw/day	

bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	0.05 mg/m³	
	Long-term systemic effects dermal	0.07 mg/kg bw/day	

dioctylbis(pentane-2,4-dionato-O,O')tin

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	84 mg/m³	
	Acute systemic effects inhalation	84 mg/m³	
	Long-term local effects inhalation	0.091 mg/m³	
	Long-term systemic effects dermal	0.07 mg/kg bw/day	

methanol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Acute systemic effects dermal	40 mg/kg bw/day	
	Acute systemic effects inhalation	260 mg/m³	
	Acute local effects inhalation	260 mg/m³	
	Long-term systemic effects dermal	40 mg/kg bw/day	
	Long-term systemic effects inhalation	260 mg/m³	
	Long-term local effects inhalation	260 mg/m³	

DNEL - General population

3-(trimethoxysilyl)propylamine

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	17 mg/m³	
	Long-term systemic effects dermal	5 mg/kg bw/day	
	Long-term systemic effects oral	5 mg/kg bw/day	

bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	0.01 mg/m³	
	Long-term systemic effects dermal	33 µg/kg bw/day	
	Long-term systemic effects oral	3 µg/kg bw/day	

methanol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Acute systemic effects dermal	8 mg/kg bw/day	
	Acute systemic effects inhalation	50 mg/m³	
	Acute local effects inhalation	50 mg/m³	
	Long-term systemic effects dermal	8 mg/kg bw/day	
	Long-term systemic effects inhalation	50 mg/m³	
	Long-term local effects inhalation	50 mg/m³	

PNEC

3-(trimethoxysilyl)propylamine

Compartments	Value	Remark
Fresh water	0.33 mg/l	
Marine water	0.033 mg/l	
Aqua (intermittent releases)	3.3 mg/l	
STP	13 mg/l	
Fresh water sediment	1.2 mg/kg sediment dw	
Marine water sediment	0.12 mg/kg sediment dw	
Soil	0.045 mg/kg soil dw	
Oral	44.4 mg/kg food	

bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate

Compartments	Value	Remark
Fresh water	0.00002 mg/l	
Marine water	0.000002 mg/l	
Aqua (intermittent releases)	0.61 mg/l	
STP	1 mg/l	
Fresh water sediment	252.2 mg/kg sediment dw	
Marine water sediment	25.22 mg/kg sediment dw	
Soil	1 mg/kg soil dw	

dioctylbis(pentane-2,4-dionato-O,O')tin

Compartments	Value	Remark
Fresh water	0.026 mg/l	
Marine water	0.0026 mg/l	
Aqua (intermittent releases)	0.26 mg/l	
STP	1 mg/l	
Fresh water sediment	0.155 mg/kg sediment dw	
Marine water sediment	0.0155 mg/kg sediment dw	
Soil	0.0158 mg/kg soil dw	

methanol

Compartments	Value	Remark
Fresh water	20.8 mg/l	
Marine water	2.08 mg/l	
Aqua (intermittent releases)	1540 mg/l	
Fresh water sediment	77 mg/kg sediment dw	
Marine water sediment	7.7 mg/kg sediment dw	
Soil	3.18 mg/kg soil dw	
STP	100 mg/l	

8.1.5 Control banding

If applicable and available it will be listed below.

8.2 Exposure controls:

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

8.2.1 Appropriate engineering controls

Keep away from naked flames/heat.

8.2.2 Individual protection measures, such as personal protective equipment

Observe normal hygiene standards. Keep container tightly closed. Do not eat, drink or smoke during work.

a) Respiratory protection:

Respiratory protection not required in normal conditions.

b) Hand protection:

Gloves.

c) Eye protection:

Safety glasses.

d) Skin protection:

Protective clothing.

8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Physical form	Paste
Odour	Almost odourless
Odour threshold	No data available
Colour	Variable in colour, depending on the composition
Particle size	No data available
Explosion limits	No data available
Flammability	Not easily combustible
Log Kow	Not applicable (mixture)
Dynamic viscosity	No data available
Kinematic viscosity	No data available
Melting point	No data available
Boiling point	No data available
Flash point	No data available
Evaporation rate	No data available
Relative vapour density	No data available
Vapour pressure	No data available
Solubility	water ; insoluble
Relative density	No data available
Decomposition temperature	No data available
Auto-ignition temperature	No data available
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	No chemical group associated with oxidising properties
pH	No data available

9.2 Other information:

Surface tension	No data available
Absolute density	No data available

SECTION 10: Stability and reactivity

10.1 Reactivity:

Heating increases the fire hazard.

10.2 Chemical stability:

Stable under normal conditions.

10.3 Possibility of hazardous reactions:

No data available.

10.4 Conditions to avoid:

Keep away from naked flames/heat.

10.5 Incompatible materials:

No data available.

10.6 Hazardous decomposition products:

Upon combustion: formation of CO, CO2 and small quantities of nitrous vapours, hydrogen chloride.

SECTION 11: Toxicological information

11.1 Information on toxicological effects:

11.1.1 Test results

Acute toxicity

Fix All Crystal

No (test)data on the mixture available

3-(trimethoxysilyl)propylamine

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	2.970 ml/kg bw		Rat (male)	Experimental value	
Dermal	LD50	Equivalent to OECD 402	11.3 ml/kg bw	24 h	Rabbit (male)	Experimental value	
Inhalation (vapours)	LC50	OECD 403	> 5 ppm	6 h	Rat (male)	Read-across	
Inhalation (vapours)	LC50	OECD 403	> 16 ppm	6 h	Rat (female)	Read-across	

bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	1490 mg/kg bw		Rat (male/female)	Experimental value	
Dermal	LD50	Equivalent to OECD 402	> 3170 mg/kg bw	24 h	Rat (male/female)	Experimental value	
Inhalation (aerosol)	LC50	Equivalent to OECD 403	> 460 mg/m³ air	4 h	Rat (male/female)	Experimental value	

dioctylbis(pentane-2,4-dionato-O,O')tin

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 423	2500 mg/kg		Rat (female)	Experimental value	
Dermal	LD50	OECD 402	> 2000 mg/g	24 h	Rat (male/female)	Experimental value	
Inhalation (vapours)	LC50	Equivalent to OECD 403	1224 ppm	4 h	Rat (male/female)	Experimental value	

methanol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	BASF test	1187 mg/kg bw - 2769 mg/kg bw		Rat (male/female)	Weight of evidence	
Oral	LD0	Equivalent to OECD 401	> 2528 mg/kg bw		Rat	Experimental value	
Oral			category 3			Annex VI	
Dermal			category 3			Annex VI	
Inhalation (vapours)	LC50	BASF test	128.2 mg/l air	4 h	Rat (male/female)	Weight of evidence	
Inhalation			category 2			Annex VI	

Judgement is based on the relevant ingredients

Conclusion

Not classified for acute toxicity

Corrosion/irritation

Fix All Crystal

No (test)data on the mixture available

3-(trimethoxysilyl)propylamine

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious eye damage	Equivalent to OECD 405		24; 48; 72 hours	Rabbit	Read-across	
Skin	Irritating	OECD 404	3 min-4 h	1; 24; 48; 72; 168 hours	Rat	Calculated value	

bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	Equivalent to OECD 405	30 seconds	24; 48; 72 hours	Rabbit	Experimental value	
Skin	Not irritating	Equivalent to OECD 404	24 h	24; 72 hours	Rabbit	Experimental value	

dioctylbis(pentane-2,4-dionato-O,O')tin

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	OECD 405		24; 72 hours	Rabbit	Experimental value	
Skin	Not irritating	OECD 404	4 h	1 hour	Rabbit	Experimental value	

methanol

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	BASF test		1; 24 hours	Rabbit	Experimental value	
Eye	Not irritating	OECD 405		24; 48; 72 hours	Rabbit	Experimental value	
Skin	Not irritating	BASF test	20 h	48; 72 hours	Rabbit	Experimental value	

Judgement is based on the relevant ingredients

Conclusion

Not classified as irritating to the skin

Not classified as irritating to the eyes

Not classified as irritating to the respiratory system

Respiratory or skin sensitisation

Fix All Crystal

No (test)data on the mixture available

3-(trimethoxysilyl)propylamine

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 406	72 h	24; 48 hours	Guinea pig (male/female)	Experimental value	

bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Other			Guinea pig (male/female)	Experimental value	

dioctylbis(pentane-2,4-dionato-O,O')tin

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Sensitizing	OECD 429			Mouse (female)	Experimental value	

methanol

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Equivalent to OECD 406		24; 48; 72 hours	Guinea pig (female)	Experimental value	

Judgement is based on the relevant ingredients

Conclusion

Not classified as sensitizing for skin

Not classified as sensitizing for inhalation

Specific target organ toxicity

Fix All Crystal

No (test)data on the mixture available

3-(trimethoxysilyl)propylamine

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	LOAEL	OECD 408	600 mg/kg bw/day	Liver	Clinical signs; mortality; body weight; food consumption	92 day(s)	Rat (male/female)	Read-across
Oral (stomach tube)	NOAEL	OECD 408	200 mg/kg bw/day	Liver	No effect	92 day(s)	Rat (male/female)	Read-across
Inhalation (aerosol)	IRT (inhalation risk test)	Equivalent to OECD 412	147 mg/m³ air	Lungs	Lesions in larynx, trachea and lung	4 weeks (6h/day, 5 days/week)	Rat (male)	Read-across

bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	LOAEL	OECD 421	10 mg/kg bw/day	Lymph nodes	Enlargement of the lymph glands	28 day(s)	Rat (male/female)	Experimental value
Oral (stomach tube)	LOAEL	OECD 421	10 mg/kg bw/day	Liver	Enlargement/affection of the liver	28 day(s)	Rat (male/female)	Experimental value
Oral (stomach tube)	LOAEL	OECD 421	10 mg/kg bw/day	Spleen	Spleen enlargement/affection	28 day(s)	Rat (male/female)	Experimental value

dioctylbis(pentane-2,4-dionato-O,O')tin

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (diet)	NOAEL	OECD 422	0.3 mg/kg bw/day - 0.5 mg/kg bw/day	Thymus	No effect	28 day(s)	Rat (male/female)	Experimental value
Dermal								Data waiving
Inhalation (vapours)	NOEC	Equivalent to OECD 413	100 ppm		No effect	14 weeks (6h/day, 5 days/week)	Rat (male/female)	Experimental value
Inhalation (vapours)	LOAEC	Equivalent to OECD 413	650 ppm	Various organs	Histopathology	14 weeks (6h/day, 5 days/week)	Rat (male/female)	Experimental value

methanol

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral	LOAEL	Other	2340 mg/kg bw/day		Mortality	3 day(s)	Monkey (male)	Experimental value
Oral (stomach tube)		Incident			Visual disturbances to permanent blindness		Human (male)	
Inhalation	NOAEC	Other	0.013 mg/l air			29 month(s)	Monkey	Weight of evidence
Inhalation	LOAEC		0.13 mg/l air	Brain	Brain affection	29 week(s)	Monkey	Weight of evidence
Inhalation		Other	1.6 mg/l air		Visual disturbances to permanent blindness		Human	
Inhalation (vapours)	NOAEC	Equivalent to OECD 412	6.66 mg/l air		No effect	4 weeks (6h/day, 5 days/week)	Rat (male/female)	Weight of evidence
Inhalation	NOAEC	Equivalent to OECD 453	1.3 mg/l air		No effect	12 month(s)	Mouse (male/female)	Weight of evidence
Inhalation (vapours)	NOEC	Equivalent to OECD 453	0.13 mg/l air		No effect	12 month(s)	Rat (male/female)	Weight of evidence
Inhalation	NOEC	Human observation	0.26 mg/l air	Central nervous system	No effect	4 h	Human	Weight of evidence

Judgement is based on the relevant ingredients

Conclusion

Not classified for subchronic toxicity

Mutagenicity (in vitro)

Fix All Crystal

No (test)data on the mixture available

3-(trimethoxysilyl)propylamine

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	OECD 476	Chinese hamster ovary (CHO)	No effect	Read-across
Negative with metabolic activation, negative without metabolic activation	OECD 473	Chinese hamster lung fibroblasts	No effect	Read-across
Negative with metabolic activation, negative without metabolic activation	OECD 471	Escherichia coli	No effect	Experimental value
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value

bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	Ames test	Bacteria (S.typhimurium)	No effect	Experimental value
Negative with metabolic activation, negative without metabolic activation	OECD 476	Chinese hamster ovary (CHO)	No effect	Experimental value
Positive with metabolic activation, positive without metabolic activation	OECD 473	Chinese hamster ovary (CHO)		Experimental value

dioctylbis(pentane-2,4-dionato-O,O')tin

Result	Method	Test substrate	Effect	Value determination
Negative	OECD 476	Chinese hamster lung fibroblasts	No effect	Experimental value
Negative	OECD 473	Chinese hamster lung fibroblasts	No effect	Experimental value
Negative	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value

methanol

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)	No effect	Weight of evidence
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 476	Chinese hamster lung fibroblasts	No effect	Weight of evidence
Negative with metabolic activation, negative without metabolic activation	OECD 471	Escherichia coli	No effect	Weight of evidence
Negative without metabolic activation	OECD 473	Chinese hamster lung fibroblasts	No effect	Weight of evidence

Mutagenicity (in vivo)

Fix All Crystal

No (test)data on the mixture available

3-(trimethoxysilyl)propylamine

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	Equivalent to OECD 474		Mouse (male/female)	Bone marrow	Read-across

dioctylbis(pentane-2,4-dionato-O,O')tin

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	OECD 474		Mouse (male)	Bone marrow	Experimental value

methanol

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	OECD 474	5 days (6h/day)	Mouse (male)		Weight of evidence
Negative	OECD 474	5 day(s)	Mouse (female)		Weight of evidence

Carcinogenicity

Fix All Crystal

No (test)data on the mixture available

3-(trimethoxysilyl)propylamine

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Organ	Effect
Dermal	NOAEL	Not further determined	43.8 mg/week	104 weeks (3 times/week)	Mouse (male/female)	Inconclusive, insufficient data	Skin	No carcinogenic effect

methanol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Organ	Effect
Inhalation	NOAEC	Equivalent to OECD 453	≥ 1.3 mg/l air	24 months (daily, 20h/day)	Rat (male/female)	Weight of evidence		
Inhalation	NOAEC	Equivalent to OECD 453	≥ 1.3 mg/l air	18 month(s)	Mouse (male/female)	Weight of evidence		
Oral	NOAEL	Other	466 mg/kg bw/day - 529 mg/kg bw/day	104 week(s)	Rat (male/female)	Experimental value		Overall effects
Oral	LOAEL	Other	1872 mg/kg bw/day - 2101 mg/kg bw/day	104 week(s)	Rat (male/female)	Experimental value		Overall effects

Reproductive toxicity

Fix All Crystal

No (test)data on the mixture available

3-(trimethoxysilyl)propylamine

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL	EPA OTS 798.4900	100 mg/kg bw/day	14 days (gestation, daily)	Rat	No effect		Read-across
	LOAEL	EPA OTS 798.4900	600 mg/kg bw/day	14 days (gestation, daily)	Rat	Minor skeletal variations	Skeleton	Read-across
Maternal toxicity	NOAEL	Other	100 mg/kg bw/day	14 day(s)	Rat	No effect		Read-across
	LOAEL	Other	600 mg/kg bw/day	14 day(s)	Rat	Clinical signs; mortality; body weight; food consumption	General	Read-across
Effects on fertility	NOAEL	OECD 408	600 mg/kg bw/day	92 day(s)	Rat (male/female)	No effect		Read-across

bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity								Data waiving
Maternal toxicity								Data waiving
Effects on fertility	NOAEL	Equivalent to OECD 421	≥ 10 mg/kg bw/day	36-50 day(s)	Rat (male/female)	No effect		Experimental value

dioctylbis(pentane-2,4-dionato-O,O')tin

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Maternal toxicity	NOAEL	OECD 422	0.3 mg/kg bw/day - 0.5 mg/kg bw/day	28 day(s)	Rat	No effect	Thymus	Experimental value
Effects on fertility	NOAEL	OECD 422	0.3 mg/kg bw/day - 0.5 mg/kg bw/day	28 day(s)	Rat (male/female)	No effect		Experimental value

methanol

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEC	Equivalent to OECD 414	1.33 mg/kg bw/day	11 days (gestation, daily)	Rat (female)	No effect		Weight of evidence
	LOAEC	Equivalent to OECD 414	6.65 mg/kg bw/day	11 days (gestation, daily)	Rat (female)	Litter size and weights; grossly visible abnormalities; external soft tissue; skeletal abnormalities		Weight of evidence
	LOAEL	Other	5000 mg/kg bw/day	6 - 10 days (gestation, daily)	Mouse			Experimental value
	LOAEL	Other	1700 mg/kg bw/day	6 - 10 days (gestation, daily)	Mouse			Experimental value
	NOAEC	Equivalent to OECD 414	1.33 mg/l air	6 - 15 days (gestation, daily)	Mouse			Experimental value
	NOAEC	Equivalent to OECD 414	1.33 mg/kg bw/day	11 days (gestation, daily)	Rat (female)	No effect		Weight of evidence
	LOAEC	Equivalent to OECD 414	6.65 mg/kg bw/day	11 days (gestation, daily)	Rat (female)	Litter weights		Weight of evidence
Maternal toxicity	NOAEL	Equivalent to OECD 414	1.33 mg/kg bw/day	11 days (gestation, daily)	Rat (female)	No effect		Weight of evidence
	LOAEL	Equivalent to OECD 414	6.65 mg/kg bw/day	11 days (gestation, daily)	Rat (female)	Reduced body weight and food consumption		Weight of evidence
	NOAEL	Equivalent to OECD 414	5000 mg/kg bw/day		Mouse (female)	No effect		Weight of evidence
Effects on fertility	NOAEC (P)	Equivalent to OECD 416	1.3 mg/l air	103 -108 day(s)	Rat (male/female)	No effect		Weight of evidence
	NOAEC (P/F1)	Other	2.39 mg/l air	355 day(s)	Monkey (female)	No effect		Weight of evidence
	NOAEL (P)	Other	< 1000 mg/kg bw/day	5 day(s)	Mouse (male)			Experimental value
	NOAEC (F1)	Equivalent to OECD 416	0.13 mg/l air	145-153 day(s)	Rat (male/female)	No effect		Weight of evidence
	NOAEC (F2)	Equivalent to OECD 416	0.13 mg/l air	54-56 day(s)	Rat (male/female)	No effect		Weight of evidence
		Equivalent to OECD 416	1.3 mg/l air	145-153 day(s)	Rat (male/female)	Reproductive performance		Weight of evidence
		Equivalent to OECD 416	1.3 mg/l air	54-56 day(s)	Rat (male/female)	Reproductive performance		Weight of evidence

Judgement is based on the relevant ingredients

Conclusion CMR

Not classified for reprotoxic or developmental toxicity
Not classified for mutagenic or genotoxic toxicity
Not classified for carcinogenicity

Toxicity other effects

Fix All Crystal

No (test)data on the mixture available

methanol

Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
NOEC	Human observation	0.26 mg/l	Central nervous system	No effect	4 h	Human	Weight of evidence
LDL0		4000 mg/kg bw		Mortality		Monkey (male/female)	Experimental value

Chronic effects from short and long-term exposure

Fix All Crystal

No effects known.

SECTION 12: Ecological information

12.1 Toxicity:

Fix All Crystal

No (test)data on the mixture available

3-(trimethoxysilyl)propylamine

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	> 934 mg/l	96 h	Danio rerio	Semi-static system	Fresh water	Read-across; GLP
Acute toxicity invertebrates	EC50	OECD 202	331 mg/l	48 h	Daphnia magna	Static system	Fresh water	Read-across; GLP
Toxicity algae and other aquatic plants	EC50	EU Method C.3	> 1000 mg/l	72 h	Desmodesmus subspicatus	Static system	Fresh water	Read-across; GLP
Toxicity aquatic micro-organisms	EC50	Other	43 mg/l	5.75 h	Pseudomonas putida	Static system	Fresh water	Read-across; GLP

bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	> 100 mg/l	96 h	Danio rerio	Semi-static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	EC50	Other	61 mg/l	72 h	Scenedesmus subspicatus	Static system	Fresh water	Experimental value; Biomass
Long-term toxicity aquatic invertebrates	NOEC	OECD 211	2 µg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; GLP
Toxicity aquatic micro-organisms	IC50	OECD 209	> 100 mg/l	3 h	Activated sludge	Static system	Fresh water	Experimental value

dioctylbis(pentane-2,4-dionato-O,O')tin

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	86 mg/l	96 h	Pisces	Static system		Experimental value
Acute toxicity invertebrates	EC50	OECD 202	58.6 mg/l	48 h	Daphnia magna	Static system		Experimental value
Toxicity algae and other aquatic plants	EC50	OECD 201	300 mg/l	24 h	Scenedesmus subspicatus	Static system		Experimental value

methanol

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	EPA 600/3-75/009	15400 mg/l	96 h	Lepomis macrochirus	Flow-through system	Fresh water	Experimental value; Lethal
Acute toxicity invertebrates	EC50	DIN 38412-11	> 10000 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Lethal
	EC50	OECD 202	18260 mg/l	96 h	Daphnia magna	Semi-static system	Fresh water	Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	EC50	OECD 201	22000 mg/l	96 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
Long-term toxicity fish	NOEC	Other	7900 mg/l	200 h	Oryzias latipes	Static system	Fresh water	Experimental value
	EC50	Other	14536 mg/l	200 h	Oryzias latipes	Static system	Fresh water	Experimental value
Long-term toxicity aquatic invertebrates	NOEC		208 mg/l	2 day(s)	Daphnia magna			QSAR; Reproduction
Toxicity aquatic micro-organisms	IC50	OECD 209	> 1000 mg/l	3 h	Activated sludge	Static system	Fresh water	Experimental value
Toxicity sediment organisms	EC50	Other	71700 mg/l	3 minutes	Tubifex tubifex	Static system	Fresh water	Experimental value; Locomotor effect

	Parameter	Method	Value	Duration	Species	Value determination
Toxicity soil macro-organisms	LC50	OECD 207	> 1 mg/cm² test mat.	48 h	Eisenia fetida	Experimental value
Toxicity terrestrial plants	EC50		60 mol/l	7 day(s)	Triticum aestivum	Weight of evidence

Classification is based on the relevant ingredients

Conclusion

Harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability:

3-(trimethoxysilyl)propylamine

Biodegradation water

Method	Value	Duration	Value determination
EU Method C.4	67 %; GLP	28 day(s)	Experimental value

Half-life water (t1/2 water)

Method	Value	Primary degradation/mineralisation	Value determination
	4 h; pH = 7	Primary degradation	QSAR

bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate

Biodegradation water

Method	Value	Duration	Value determination
OECD 301B: CO2 Evolution Test	2 %	28 day(s)	Experimental value

dioctylbis(pentane-2,4-dionato-O,O')tin

Biodegradation water

Method	Value	Duration	Value determination
OECD 301F: Manometric Respirometry Test	9 %; GLP	28 day(s)	Experimental value

methanol

Biodegradation water

Method	Value	Duration	Value determination
Other	82.7 %	5 day(s)	Experimental value
Other	71.5 %	5 day(s)	Experimental value
Other	95 % - 97 %; Oxygen consumption	20 day(s)	Experimental value
Other	95 %	5 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
Other	17.2 day(s)		Experimental value

Biodegradation soil

Method	Value	Duration	Value determination
Other	46.3 % - 53..4 %	5 day(s)	Experimental value

Conclusion

Contains non readily biodegradable component(s)

12.3 Bioaccumulative potential:

Fix All Crystal

Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

3-(trimethoxysilyl)propylamine

Log Kow

Method	Remark	Value	Temperature	Value determination
		0.2	20 °C	QSAR

bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	OECD 305	24.3 - 437.1	60 day(s)	Cyprinus carpio	Experimental value

Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 107		3.7	23 °C	Experimental value
OECD 117		> 6.5	23 °C	Experimental value
Other		4.2	23 °C	Experimental value

dioctylbis(pentane-2,4-dionato-O,O')tin

Log Kow

Method	Remark	Value	Temperature	Value determination
	No data available			

methanol

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	Other	< 10	72 h	Leuciscus idus	Experimental value
		1	72 h	Cyprinus carpio	Experimental value
		3	72 h	Cyprinus carpio	Experimental value
		4.5	72 h	Cyprinus carpio	Experimental value

Log Kow

Method	Remark	Value	Temperature	Value determination
Other		-0.77		Experimental value

Conclusion

Does not contain bioaccumulative component(s)

12.4 Mobility in soil:

bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate

(log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	3.04 - 8.1	Calculated value

methanol

(log) Koc

Parameter	Method	Value	Value determination
Koc	SRC PCKOCWIN v1.66	1	Calculated value
	Other	0.13 - 0.61	Experimental value

Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
0.461 Pa.m³/mol		25 °C		Literature

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level I	12.5 %	0 %	0 %	0 %	87.5 %	QSAR
Mackay level III	73.3 %		0.02 %	11.1 %	15.6 %	QSAR

Conclusion

Contains component(s) that adsorb(s) into the soil

12.5 Results of PBT and vPvB assessment:

Does not contain component(s) that meet(s) the criteria of PBT and/or vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006.

12.6 Other adverse effects:

Fix All Crystal

Global warming potential (GWP)

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EC) No 517/2014)

Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

3-(trimethoxysilyl)propylamine

Global warming potential (GWP)

Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 517/2014)

Ground water

Ground water pollutant

bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate

Global warming potential (GWP)

Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 517/2014)

dioctylbis(pentane-2,4-dionato-O,O')tin

Global warming potential (GWP)

Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 517/2014)

methanol

Global warming potential (GWP)

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EC) No 517/2014)

Ground water

Ground water pollutant

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

13.1 Waste treatment methods:

13.1.1 Provisions relating to waste

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).
08 04 09* (wastes from MFSU of adhesives and sealants (including waterproofing products): waste adhesives and sealants containing organic solvents or other dangerous substances). Depending on branch of industry and production process, also other waste codes may be applicable. Hazardous waste according to Directive 2008/98/EC.

13.1.2 Disposal methods

Recycle/reuse. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Do not discharge into drains or the environment.

13.1.3 Packaging/Container

Waste material code packaging (Directive 2008/98/EC).
15 01 10* (packaging containing residues of or contaminated by dangerous substances).

SECTION 14: Transport information

Road (ADR)

14.1 UN number:

Transport	Not subject

14.2 UN proper shipping name:

14.3 Transport hazard class(es):

Hazard identification number	
Class	
Classification code	

14.4 Packing group:

Packing group	
Labels	

14.5 Environmental hazards:

Environmentally hazardous substance mark	no

14.6 Special precautions for user:

Special provisions	
Limited quantities	

Rail (RID)

14.1 UN number:

Transport	Not subject

14.2 UN proper shipping name:

14.3 Transport hazard class(es):

Hazard identification number	
Class	
Classification code	

14.4 Packing group:

Packing group	
Labels	

14.5 Environmental hazards:

Environmentally hazardous substance mark	no

14.6 Special precautions for user:

Special provisions	
Limited quantities	

Inland waterways (ADN)

14.1 UN number:

Transport	Not subject

14.2 UN proper shipping name:

14.3 Transport hazard class(es):

Class	
Classification code	

14.4 Packing group:

Packing group	
Labels	

14.5 Environmental hazards:

Environmentally hazardous substance mark	no

14.6 Special precautions for user:

Special provisions	
Limited quantities	

Sea (IMDG/IMSBC)

14.1 UN number:

Transport	Not subject

14.2 UN proper shipping name:

14.3 Transport hazard class(es):

Class	

14.4 Packing group:

Packing group	
Labels	

14.5 Environmental hazards:

Marine pollutant	-
Environmentally hazardous substance mark	no

14.6 Special precautions for user:

Special provisions	
Limited quantities	

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:

Annex II of MARPOL 73/78	

Air (ICAO-TI/IATA-DGR)

14.1 UN number:

Transport	Not subject

14.2 UN proper shipping name:

14.3 Transport hazard class(es):

Class	

14.4 Packing group:

Packing group	
Labels	

14.5 Environmental hazards:

Environmentally hazardous substance mark	no

14.6 Special precautions for user:

Special provisions	
Passenger and cargo transport: limited quantities: maximum net quantity per packaging	

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

European legislation:

VOC content Directive 2010/75/EU

VOC content	Remark
< 2 %	

Indicative occupational exposure limit values (Directive 98/24/EC, 2000/39/EC and 2009/161/EU)

Product name	Skin resorption
Methanol	Skin

REACH Annex XVII - Restriction

Contains component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

· 3-(trimethoxysilyl)propylamine · dioctylbis(pentane-2,4-dionato-O,O')tin · methanol	Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: (a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F; (b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10; (c) hazard class 4.1; (d) hazard class 5.1.	1. Shall not be used in: — ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays, — tricks and jokes, — games for one or more participants, or any article intended to be used as such, even with ornamental aspects,2. Articles not complying with paragraph 1 shall not be placed on the market.3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they: — can be used as fuel in decorative oil lamps for supply to the general public, and, — present an aspiration hazard and are labelled with R65 or H304,4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met: a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: “Keep lamps filled with this liquid out of the reach of children”; and, by 1 December 2010, “Just a sip of lamp oil — or even sucking the wick of lamps — may lead to life- threatening lung damage”; b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: “Just a sip of grill lighter may lead to life threatening lung damage”; c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public.7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.’
· dioctylbis(pentane-2,4-dionato-O,O')tin	Organostannic compounds	1. Shall not be placed on the market, or used, as substances or in mixtures where the

		substance or mixture is acting as biocide in free association paint.2. Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture acts as biocide to prevent the fouling by micro-organisms, plants or animals of: (a) all craft irrespective of their length intended for use in marine, coastal, estuarine and inland waterways and lakes; (b) cages, floats, nets and any other appliances or equipment used for fish or shellfish farming; (c) any totally or partly submerged appliance or equipment.3. Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture is intended for use in the treatment of industrial waters.4. Tri-substituted organostannic compounds: a) Tri-substituted organostannic compounds such as tributyltin (TBT) compounds and triphenyltin (TPT) compounds shall not be used after 1 July 2010 in articles where the concentration in the article, or part thereof, is greater than the equivalent of 0,1 % by weight of tin. b) Articles not complying with point (a) shall not be placed on the market after 1 July 2010, except for articles that were already in use in the Community before that date.5. Dibutyltin (DBT) compounds: a) Dibutyltin (DBT) compounds shall not be used after 1 January 2012 in mixtures and articles for supply to the general public where the concentration in the mixture or the article, or part thereof, is greater than the equivalent of 0,1 % by weight of tin. b) Articles and mixtures not complying with point (a) shall not be placed on the market after 1 January 2012, except for articles that were already in use in the Community before that date. c) By way of derogation, points (a) and (b) shall not apply until 1 January 2015 to the following articles and mixtures for supply to the general public: — one-component and two-component room temperature vulcanisation sealants (RTV-1 and RTV-2 sealants) and adhesives, — paints and coatings containing DBT compounds as catalysts when applied on articles, — soft polyvinyl chloride (PVC) profiles whether by themselves or coextruded with hard PVC, — fabrics coated with PVC containing DBT compounds as stabilisers when intended for outdoor applications, — outdoor rainwater pipes, gutters and fittings, as well as covering material for roofing and façades, d) By way of derogation, points (a) and (b) shall not apply to materials and articles regulated under Regulation (EC) No 1935/2004.6. Dioctyltin (DOT) compound: (a) Dioctyltin (DOT) compounds shall not be used after 1 January 2012 in the following articles for supply to, or use by, the general public, where the concentration in the article, or part thereof, is greater than the equivalent of 0,1 % by weight of tin: — textile articles intended to come into contact with the skin, — gloves, — footwear or part of footwear intended to come into contact with the skin, — wall and floor coverings, — childcare articles, — female hygiene products, — nappies, — two-component room temperature vulcanisation moulding kits (RTV-2 moulding kits). (b) Articles not complying with point (a) shall not be placed on the market after 1 January 2012, except for articles that were already in use in the Community before that date.
· methanol	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to that Regulation or not.	1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following: — metallic glitter intended mainly for decoration, — artificial snow and frost, — “whoopee” cushions, — silly string aerosols, — imitation excrement, — horns for parties, — decorative flakes and foams, — artificial cobwebs, — stink bombs.2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with: “For professional users only”.3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/ 324/EEC.4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.

National legislation The Netherlands

Fix All Crystal

Waste identification (the Netherlands)	LWCA (the Netherlands): KGA category 04
Waterbezwaarlijkheid	1

methanol

SZW - List of reprotoxic substances (development)	Hazardous to the foetus

National legislation Germany

Fix All Crystal

WGK	1; Classification water polluting based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 4)

3-(trimethoxysilyl)propylamine

TA-Luft	5.2.5

bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate

TA-Luft	5.2.1

dioctylbis(pentane-2,4-dionato-O,O')tin

Schwangerschaft Gruppe	D
MAK 8-Stunden-Mittelwert mg/m³	Zinnverbindungen, organische (als Sn berechnet); 0,1 mg/m³; als Sn berechnet gemessen als einatembare Fraktion (vgl. Abschn. Vd) S. 191)
TA-Luft	5.2.5

methanol

Schwangerschaft Gruppe	C
MAK 8-Stunden-Mittelwert ppm	Methanol; 200 ppm
MAK 8-Stunden-Mittelwert mg/m³	Methanol; 270 mg/m³
TA-Luft	5.2.5; I

National legislation France

Fix All Crystal

No data available

National legislation Belgium

Fix All Crystal

No data available

Other relevant data

Fix All Crystal

No data available

dioctylbis(pentane-2,4-dionato-O,O')tin

TLV - Carcinogen	Tin organic compounds, as Sn; A4

15.2 Chemical safety assessment:

No chemical safety assessment is required.

SECTION 16: Other information

Full text of any H-statements referred to under headings 2 and 3:

H225 Highly flammable liquid and vapour.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H330 Fatal if inhaled.
H370 Causes damage to the optic nerve and the central nervous system.
H371 May cause damage to the immune system if swallowed.
H372 Causes damage to organs through prolonged or repeated exposure.
H373 May cause damage to organs through prolonged or repeated exposure if swallowed.
H410 Very toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

(*) = INTERNAL CLASSIFICATION BY BIG

PBT-substances = persistent, bioaccumulative and toxic substances

CLP (EU-GHS) Classification, labelling and packaging (Globally Harmonised System in Europe)

M-factor

bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate	10	Chronic	ECHA

Specific concentration limits CLP

dioctylbis(pentane-2,4-dionato-O,O')tin	C > 5 %	Skin Sens. 1; H317	TIB Chemicals
methanol	C ≥ 10 %	STOT SE 1; H370	CLP Annex VI (ATP 0)
	3 % ≤ C < 10 %	STOT SE 2; H371	CLP Annex VI (ATP 0)

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